

# ENVIRONMENT, SAFETY AND HEALTH UPDATE

**William Thomlinson**

Associate Chairman

NSLS

The ES&H efforts at the NSLS have continued to expand both in response to external pressures and to a more pro-active approach taken by the members of the ES&H group. The result was a year that saw significant progress in updating and expansion of our guiding safety documentation, full realization of the benefits of a well coordinated Tier I safety program, expanded training programs, rapid and thorough response to reportable incidents, active pursuit of increased radiation safety by the ALARA Committee, and expansion of the chemical safety and hazcom programs. Each of these efforts has had a direct impact on safety at the NSLS. Of course, they are all on-going activities which require constant attention. The occasional reportable incidents must always be met with improvements in our operations, education of users and staff in order to avoid recurrences of problems and better training programs. For example, we had an incident in which an unlabeled acid bottle exploded in a storage shed. Fortunately no one was hurt, but we treated the incident with the highest priority and significantly increased our efforts in labeling of chemicals and supplied information to the staff and users on proper handling and storage of acids. The Tier I inspections which look at OSHA and housekeeping types of safety issues are never ending. It seems that we are unable to change human nature. But now the program has efficient methods of following up with cognizant personnel to rectify problems. The shielding of the VUV Ring to decrease levels of radiation (neutron and gamma) to the experimental floor and surrounding offices is well underway. Monitoring of the effectiveness of the first sections will determine the future course of action for the VUV and booster shielding.

Perhaps the highlight of the year was the NSLS participation in a BNL motivated safety stand-down. This activity had several primary purposes: clean-up of the laboratory grounds and buildings, involvement of the entire laboratory staff in maintaining and improving safety, and a follow-up Tier II self-assessment (to be completed in FY 1997). The NSLS management and ES&H group took this effort very seriously. Even though

we had had an NSLS staff meeting in which safety was featured, our NSLS safety stand-down consisted of a collective staff meeting followed by separate section meetings. At the stand-down meeting, the two most important issues were the results of a BNL safety questionnaire and a report on personnel radiation monitoring with the new TLD badges. The results of the questionnaire indicated that most NSLS staff members are informed about safety and feel that the NSLS does a very good job. However, it did show that problems exist in certain areas and has given guidance to some of our efforts. Doses measured with the new TLD badges show increased levels being reported above those reported with the old film badges. That was expected since there is a significantly lower threshold of response for the new badges. This data is being used now to improve the general understanding of our sources of radiation and to reinforce our efforts to make sure that all personnel handle the badges properly.

The separate meetings of the sections were intended to allow any staff member to openly discuss or question whatever safety related issues they had. The result was a comprehensive compilation of problems and concerns important to the staff. They ranged from concerns about snow removal, to the desire for more safety training in areas such as electrical safety, to radiation issues and to traffic safety on and off site. Since the meetings, the ES&H staff, with the aid of others, has reviewed each issue and is preparing to answer each question or correct the problem. The results will be distributed to the staff. Along with issues raised by BNL, we will take our lessons learned from the stand-down meetings into account when we prepare our Tier II self-assessment. For example, two of the most common issues raised were safety training of the staff and the need to improve the work habits of personnel. The feeling of many staff members was that safety could be greatly improved if more people had training appropriate to their actual work, not determined by job title, and if work practice safety could be coupled with Tier I inspections.

The major on-going efforts are thus to continue to decrease the small but measurable personnel doses from the VUV and booster operation, education of the staff in areas such as use of dose monitors and electrical safety, studying behavior in the work place to determine effectiveness of and new directions for training, preparation of responses to all of the questionnaire and stand down issues raised by the staff, improvement of quality of life issues by upgrading the working environment, and continued vigilance to maintain our high level of safety. The main thing that we were all reminded of this year is that the key to safety is the involvement of every staff member and user in the safety programs. Coupled with the professional guidance and efforts of the NSLS and BNL staff, the workplace can indeed be safe and productive.

